

REPORT ON BOILERS.

No. 11143.

Received at London Office

APR - 8 1940

Date of writing Report 29th March 1940 When handed in at Local Office 27th May 1939 Port of Copenhagen
 No. in Survey held at Copenhagen Date, First Survey 27th May 1939 Last Survey 17th March 1940
 g. Book. 1064 (Number of Visits 31) Gross 7714.73
 on the Single Screw Motor Vessel HÖEGH SILVERDAWN Tons Net 4729.96
 Master Asbjørn M. Wain Built at Copenhagen By whom built Skibsværket Yard No. 648 When built 1940
 Engines made at Copenhagen By whom made Asbjørn M. Wain Engine No. 3047 When made 1940
 Boilers made at Copenhagen By whom made Asbjørn M. Wain Boiler No. 1966 When made 1940
 Nominal Horse Power 1064 Owners Skibsselskabet "Arizonia" (Lip Løngren & Co) Port belonging to Oslo

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Furnaces: Deutsche Rohrwerke AG - Tubes 100 x 10 mm 2/3 - Rivets Steel 100 x 10 mm

Manufacturers of Steel Plates: Stalco Ltd. Staybolts American Bureau of Standards Letter for Record 5

Total Heating Surface of Boilers 80.42 m² - 870 sq feet Is forced draught fitted yes Coal or Oil fired oil fired

No. and Description of Boilers 1 off horizontal multitubular Working Pressure 6.32 kg/cm²

Tested by hydraulic pressure to 26.4 kg/cm² Date of test 31.10.39 No. of Certificate 654 Can each boiler be worked separately yes

Area of Firegrate in each Boiler 6700 cm² No. and Description of safety valves to each boiler 2 off direct spring loaded 76 cm diam

Area of each set of valves per boiler 6740 cm² Pressure to which they are adjusted 90 kg/cm² Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No main boiler and only this donkey boiler fitted

Smallest distance between boilers or uptakes and bunkers or woodwork 1500 mm Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating at after end of motor room Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 2900 mm Length 2986 mm Shell plates: Material Stell. Steel Tensile strength 44/50 kg/cm²

Thickness 15 mm Are the shell plates welded or flanged no Description of riveting: circ. seams single

Long. seams 26 mm lap joint Diameter of rivet holes in circ. seams 23 mm Pitch of rivets 55 mm

Percentage of strength of circ. end seams plate 58.2 Percentage of strength of circ. intermediate seam plate 41.3

Percentage of strength of longitudinal joint plate 66.4 Working pressure of shell by Rules 6.65 kg/cm²

Thickness of butt straps outer 15 mm No. and Description of Furnaces in each Boiler 2 off corrugated chlorisium sect.

Material Stell. Steel Tensile strength 41/47 kg/cm² Smallest outside diameter 820 mm

Length of plain part top 10 mm Thickness of plates bottom 10 mm Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 12.1 kg/cm²

End plates in steam space: Material Stell. Steel Tensile strength 41/47 kg/cm² Thickness 19 mm Pitch of stays D = 588 mm

How are stays secured Screwed in both plates, nuts inside outside Working pressure by Rules 6.93 kg/cm²

End plates: Material Stell. Steel Tensile strength 41/47 kg/cm² Thickness 19 mm

Pitch of stay tubes in nests 282 mm Pitch across wide water spaces 350 x 180 mm Working pressure front 8 kg/cm²

Orders to combustion chamber tops: Material Stell. Steel Tensile strength 44/50 kg/cm² Depth and thickness of girder back 8 kg/cm²

Centre 150 x 2 x 15 mm Length as per Rule 630 mm Distance apart 215-220 mm No. and pitch of stays each 2 off 200 mm

Tensile strength 41/47 kg/cm² Thickness: Sides 15 mm Back 15 mm Top 15 mm Bottom 15 mm

Pitch of stays to ditto: Sides 200 x 190 mm Back 207 x 198 mm Top 200 x 220 mm Are stays fitted with nuts or riveted over filled with nuts

Working pressure by Rules 8.86 kg/cm² Front plate at bottom: Material Stell. Steel Tensile strength 41/47 kg/cm²

Thickness 19 mm Lower back plate: Material Stell. Steel Tensile strength 41/47 kg/cm² Thickness 19 mm

Pitch of stays at wide water space D = 468 mm Are stays fitted with nuts or riveted over screwed in both plates, nuts inside outside

Working Pressure 9.5 kg/cm² Main stays: Material Stell. Steel Tensile strength 44/50 kg/cm²

Working diameter At body of stay, 2" No. of threads per inch 11 Area supported by each stay abt. 175000 mm²

Working pressure by Rules 6.8 kg/cm² Screw stays: Material Stell. Steel Tensile strength 44/50 kg/cm²

Working diameter At turned off part, 1 1/8" No. of threads per inch 11 Area supported by each stay abt. 41000 mm²

Working pressure by Rules 6.7 kg/cm² Are the stays drilled at the outer ends ☒ Margin stays: Diameter { At turned off part, 1 3/8" or Over threads 8.95 kg/cm²

No. of threads per inch 11 Area supported by each stay 57500 cm² Working pressure by Rules 8.95 kg/cm²

Tubes: Material S. C. Steel External diameter { Plain 2 1/2" Stay 2 1/2" Thickness 1.4 mm No. of threads per inch 11

Pitch of tubes 90 x 92 cm Working pressure by Rules 12.5 kg/cm² Manhole compensation: Size of opening 505 x 405 cm Section of compensating ring flanged No. of rivets and diameter of rivet holes 44 off 22 cm

shell plate 505 x 405 cm Outer row rivet pitch at ends 97 x 114 cm Depth of flange if manhole flanged 85 cm Steam Dome: Material

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of { Tubes Steel forgings Steel castings

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off from the boiler

the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules

Pressure to which the safety valves are adjusted Hydraulic test pressure tubes forgings and castings and after assembly in place Are drain cocks valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with ☒

The foregoing is a correct description,
ARTHESELSKABET
BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGGERI
C. K. K. K.

Dates of Survey { During progress of work in shops - - 27/5-3/6-14/6-20/6-17/7-23/7-27/7-2/8-1939
while building { During erection on board vessel - - 5/2-8/2-13/2-16/2-21/2-5/3-11/3-14/3-17/3-1940
Total No. of visits 3/

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) ☒

Is this Boiler a duplicate of a previous case ☒ If so, state Vessel's name and Report No. B. 4. 4. 17-631

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The above clanking boiler has been constructed and fitted on board the vessel under special survey in accordance with the Rules, the approved plans and the requirements contained in the Secretary's letter dated 17/2-39. The material used in construction has been tested as required by the Rules and the workmanship is good.

Recommend the vessel to have no tonnage in the Register Book of D B 90 tons

Survey Fee ... 130.00
Fitting of D B ... 50.00
Travelling Expenses (if any) ...
When applied for, 3. 4. 19 40
When received, 19

M. M. M. M.
Engineer/Surveyor to Lloyd's Register of Shipping

Committee's Minute
Assigned See minute on F.E. mch 1941